



New Mexico Environment Department

Waste Isolation Pilot Plant

NMED Activities

Radioactive and Hazardous Materials Committee

Wednesday, July 23, 2014

Process of Shipping Waste from LANL to WIPP

- Multiple Regulatory Agencies Involved
 - NM and U.S. Department of Transportation
 - U.S. Nuclear Regulatory Commission
 - U.S. Environmental Protection Agency
 - NM Energy, Minerals, and Natural Resources Dept.
 - NM Environment Department

Preparing Waste Prior to Shipping

- Waste Retrieval
- LANL's Hazardous Waste Facility Permit Requirements
- Flammable Gas Sampling (DOT)
- WIPP Hazardous Waste Facility Permit Requirements
 - Waste Packaging/Repackaging
 - Waste Characterization
 - Confirmation



Disposal (circa 1970)

Waste Retrieval at Idaho National Lab



Retrieval 2012



Los Alamos National Lab Waste



Waste storage



Sorting waste



Repackaging of waste
into containers

Waste Characterization

Prior to shipment to the WIPP Site

- All generator sites must characterize the waste to meet Permit requirements.
- Ensuring the absence of prohibited items.

Characterization required by Permit:

- Acceptable Knowledge (AK)
- Real-Time-Radiography (RTR)
- Visual Examination (VE)

Generator sites must have the AK and either RTR or VE for each drum that ships to WIPP.

Other characterization techniques are regulated by EPA, NRC and DOT

Waste Characterization at LANL

- Mixed Transuranic Waste Must Be Characterized
 - Acceptable Knowledge
 - Real-time Radiography
 - Visual Examination
- Central Characterization Project (CCP)
 - Characterizes and Certifies LANL waste for shipment to WIPP

Acceptable Knowledge (AK)

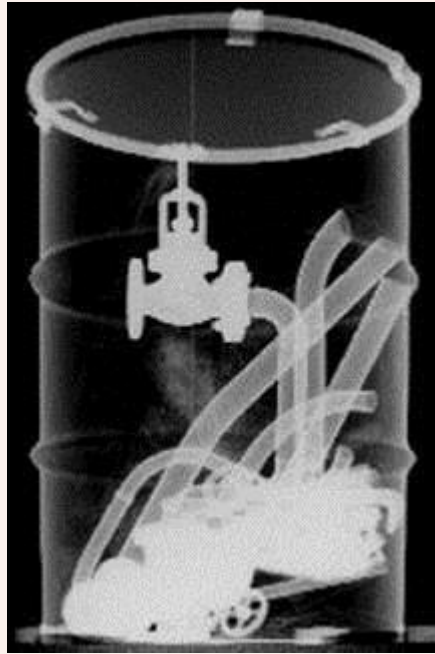
Involves:

- researching any and all documents
- interviews with past and current employees regarding the waste
- accumulating data from other characterization techniques
- resolving discrepancies with conflicting data from AK source documents



Visual Examination (VE)

Containers are selected and waste is physically sorted through inside a glove box



Real Time Radiography (RTR)

Containers are selected and run through an X-ray scanning device

Waste Stream Profile Forms

- Verification that all required elements of the WSPF are present and waste characterization information meet acceptance criteria required for WAP compliance.
- Once required radiography or VE data are obtained, sites then prepare and submit the Waste Stream Profile Form for DOE's approval.
- DOE must approve and submit completed WSPFs to NMED prior to waste stream shipment.

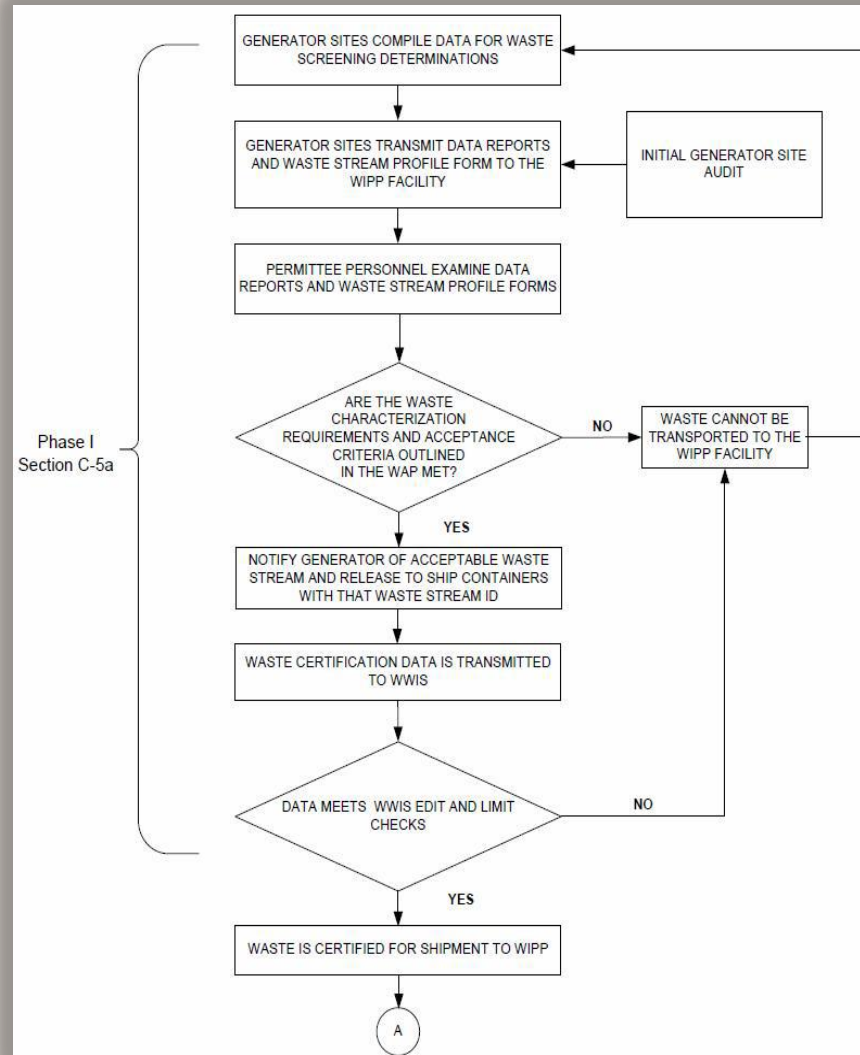
Audit & Surveillance Program

(Permit Attachment C6)

- Ensures that:
 - 1) generator/storage sites that transport waste to WIPP conduct waste testing in accordance with the WIPP Waste Analysis Plan (**WAP**)
 - 2) information supplied by each site satisfies the waste screening and acceptability requirements of the WAP
- NMED staff observe audits and surveillances to validate the implementation of WAP requirements
- A final audit report is submitted for NMED review and approval.
 - Without NMED approval of the audit the sites may not ship waste.
 - Each generator site must recertify each year.

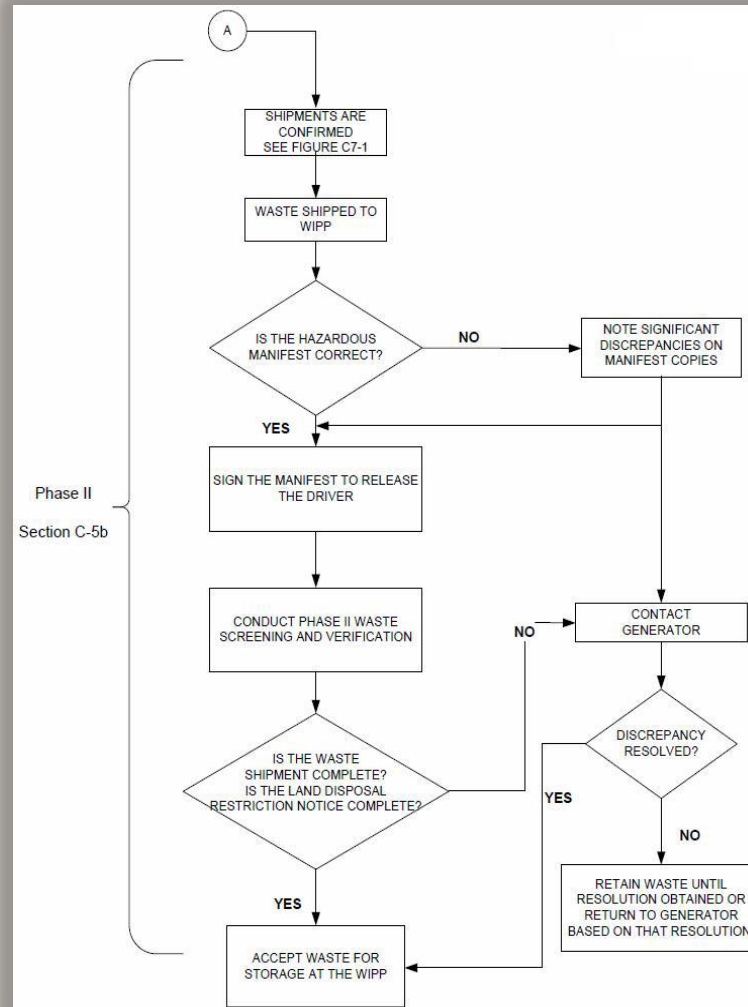
Screening and Verification

(Permit figure C-3)



Screening and Verification - Continued

(Permit figure C-3)



Transportation



TRUPACT- II



TRUPACT- III



RH-72 B

Overview of Process



Generator Sites



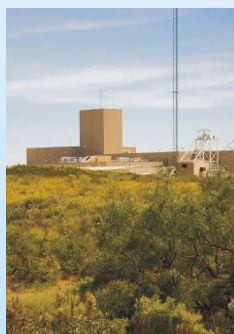
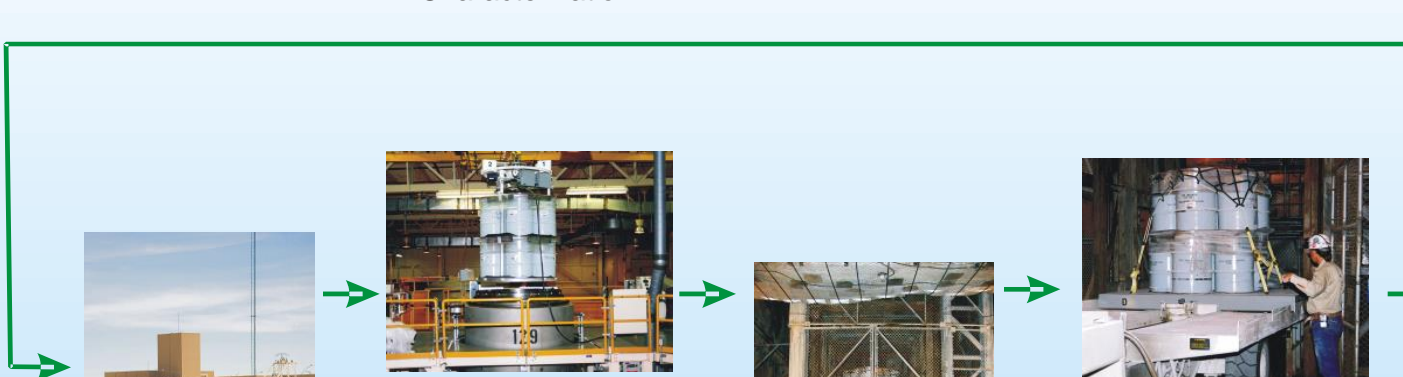
Characterization



Confirmation



Transportation system
includes satellite
tracking



WIPP Site



CH waste handling



Waste conveyance
takes waste 2,150
feet underground



CH waste transported
to disposal room



CH waste disposal



RH waste handling
in shielded facility cask



RH waste transported
to disposal room



RH waste disposal

Conclusions

- The New Mexico Environment Department continues to aggressively regulate and monitor WIPP
- Ensures compliance with the Hazardous Waste Facility Permit and all applicable hazardous waste regulations to protect human health and the environment.

For more information...

- NMED Radiological Release Event
 - <http://www.nmenv.state.nm.us/NMED/Issues/WIPP2014.html>
- NMED WIPP Permit Information
 - <http://www.nmenv.state.nm.us/wipp/>
- DOE Oversight Bureau
 - http://www.nmenv.state.nm.us/DOE_Oversight/

Questions?